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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/648,760

08/25/2003

Robbert C. Van Der Linden

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7590

06/29/2006

SAWYER LAW GROUP LLP  
2465 EAST BAYSHORE ROAD, SUITE 406  
PALO ALTO, CA 94303

EXAMINER

BELL, SHELLY T

ART UNIT

PAPER NUMBER

2191

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/648,760

Applicant(s)

VAN DER LINDEN ET AL.

Examiner

Shelly Bell

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08/25/2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-36 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/28/2004.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☒ Other: IDS filed 10/27/03 & 10/24/03.

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Line 1 of the abstract describes the applicant's invention as an "improved method."

Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6,9,13-19,22,26-31 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanne et al. "Efficient Storage of XML Data," Universitat Mannheim, Germany June 16, 1999 (Hereinafter "Kanne").

3. With respect to claims 1,14, and 27 Kanne discloses a method, computer readable medium and system for storing a structured document in its native format in a database comprising the steps of: a) receiving a structured document (Section 2.2, paragraph 1); b) generating a hierarchical node tree comprising a plurality of nodes, wherein the node tree represents the structured document; ( Section 2.2 paragraphs 3) and c) storing the plurality of nodes in at least one record in the database. ( Section 3 paragraphs 2, line 2) (a collection of records is a database) Kanne discloses a computer system coupled to at least one data storage device;(Section 4.1, lines 1-4) a database management system in the computer system; (Section 4.1, lines 3-4)(record manager) and a storage mechanism in the database management system for receiving a structured document (Section 4.1, lines 1-4).

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4. With respect to claims 2,15, and 28 Kanne discloses a method, computer readable medium, system wherein generating step (b) further comprises: (b1) parsing the structured document into the plurality of nodes (Section 3, paragraph 2 line 2); (b2) linking each of the plurality of nodes via pointers to form the hierarchical node tree; (Section 2.2 paragraph 2 line 1, Section 2.3 paragraph 2)(Section 2.3.1 line 4, section 2.3.1 explains object content which includes proxy nodes which have pointers) and a parser for parsing the structured document into a plurality of nodes and a node tree generator for linking each of the plurality of nodes via pointers to form the hierarchical node tree (Section 2.2 paragraph 3 lines 1-2).

5. With respect to claims 3,16 and 29 Kanne a discloses method, computer readable medium, and system wherein each record comprises a plurality of node slots, wherein each node slot includes a pointer pointing to a node of the plurality of nodes (See figure 2, shows nodes pointing to other nodes in a hierarchical fashion) (Section 2.1, paragraph 1, lines 3-6, paragraph 2 lines 1-2 explain the slots and how they relate to the node tree.).

6. With respect to claims 4,17, and 29 Kanne discloses a method and computer readable medium further comprising: (d) storing the at least one record on at least one page. (Section 2.1 paragraph 1, lines 3-6)(explains tree manager maps the trees into the records) .

7. With respect to claims 5,18 and 30 Kanne discloses a method, computer readable medium, and system wherein each page comprises a plurality of record slots, wherein each record slot includes a pointer pointing to a record stored on the page

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(Section 2.1 paragraphs 1 lines 3-6, paragraph 2 lines 1-2) (explains tree manager maps the trees into the records).

8. With respect to claims 6, 19 and 31 Kanne discloses a method, computer readable medium, system wherein each node is identified by an identifier comprising a record slot number corresponding to the record slot pointing to the record in which the node resides and a node slot number corresponding to the node slot pointing to the node (Section 2.1 paragraphs 1 lines 5-6, paragraph 2 lines 1-2, explains slotted pages).

9. With respect to claims 9 and 22 Kanne discloses a method and computer readable medium wherein a node slot in a first record in a first page points to a record slot in a second page and a node slot in a second record if the child node is a separate node stored in the second record on the second page (Section 3 paragraph 2 lines 1-2).

10. With respect to claims 13, 26 and 36, Kanne discloses a method, computer readable medium, and system wherein the structured document is written in Extensible Markup Language (Section 2.2 paragraph 1 line 1, paragraph 2 lines 2-3).

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. Claims 7-8,20-21,32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanne as applies to claims 5,18, and 29 above, in view of US Patent 6658652 to Alexander, III et al. (Hereinafter "Alexander").

13. Kanne discloses all the limitations of claims 5,18, and 29 from which claims 7,20, and 32 depend. Kanne fails to disclose a method, computer readable medium, and system, wherein a node comprises a plurality of child pointers if the node has children, wherein each of the plurality of pointers points to a child node and a child pointer points to a node slot pointing to the child node if the child node is a separate node.

14. Alexander teaches that a node comprises a plurality of child pointers if the node has children, wherein each of the plurality of pointers points to a child node (column 17 line 1-13) and a child pointer points to a node slot pointing to the child node if the child node is a separate node (Column 17 lines 60-66).

15. It would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the method, computer readable medium, and system of Kanne, with pointers, as taught by Alexander.

16. The motivation for doing so would be to provide a means for easily accessing data and storing additional statistics to make a subsequent statistical analysis more efficient (Column 18, lines 3-4).

17. Claims 10-12,23-25, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanne in view of Alexander as applies to the rejection of claims 7,

20, and 32 above in further view of US Patent 6938204 to Hind et al. (Hereinafter "Hind").

18. Kanne as modified does not disclose a computer readable medium, and system, wherein the node further comprises an in-lined character array and a child pointer describes the child by pointing to the in-lined character array.

19. Hind teaches a node further comprising an in-lined character array (See Abstract lines 1-2, see fig 5E) and a child pointer describing the child by pointing to the in-lined character array (See Abstract lines 12-13, Column 19 16-20).

20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method, computer readable medium, and system of Kanne as modified by Alexander, with node comprising an in-lined character array and a child pointer as taught by Hind.

21. The motivation for doing so would be improving the processing time and memory or storage requirements for arbitrarily-structured documents while still providing equivalent content and structural information (Hind, column 4 lines 1-3).

22. As concerns claims 12 and 25 Kanne as modified by Alexander does not disclose a child pointer describing a child and its value.

Hind teaches a child pointer describing a child and its value (Abstract last two lines).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kanne as modified by Alexander, a child pointer describing a child and its value as taught by Hind.

The motivation for doing so would be to improve processing time (Column 4, lines 1-6).

***Conclusion***

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelly Bell whose telephone number is (571) 270-1143.

The examiner can normally be reached on Monday through Thursday 8am – 5pm.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Susy Tsang-Foster can be reached on (571) 270-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

stb

*John B. Wahl*  
Primary Ex.  
AU 2151